

CLAIM AMENDMENTS

1-66. (Canceled)

67. (Currently Amended) A tissue ablation probe for deploying electrode arrays, comprising:

a shaft having a distal end and a proximal end;
a first array of electrodes mounted on the shaft, the first array of electrodes having a retracted configuration and a deployed configuration;
a second array of electrodes mounted on the shaft at a location spaced apart proximally from the first array of electrodes, the second array of electrodes having a retracted configuration and a deployed configuration,

wherein at least one of the electrodes of the first array is configured to initially deploy from the shaft in a distal direction, wherein at least one of the electrodes of the second array is configured to initially deploy from the shaft in a proximal direction, wherein the at least one of the electrodes electrode of the first array has an end that faces at least partially in a the proximal direction, the at least one of the electrodes electrode of the second array has an end that faces at least partially in a the distal direction, and the end of the at least one of the electrodes electrode of the second array is located proximal to the end of the at least one of the electrodes electrode of the first array when the first and the second arrays are deployed, and wherein the deployed first and second electrode arrays are configured to necrose a volume of tissue therebetween when electrical energy is applied between the first and second electrode arrays.

68. (Previously Presented) The probe of claim 67, wherein each of the electrodes of the first and the second arrays everts away from the shaft as it is being deployed.

69. (Currently Amended) The probe of claim 67, wherein the shaft has at least one cavity for receiving the first and the second electrode arrays of electrodes when the first and the second electrode arrays of electrodes are retracted.

70. (Currently Amended) The probe of claim 67, wherein the shaft has at least one cavity for receiving the first electrode array of electrodes when the first electrode array of electrodes is retracted, and at least a second cavity for receiving the second electrode array of electrodes when the second electrode array of electrodes is retracted.

71. (Currently Amended) The probe of claim 67, further comprising:

a first rod connected to the first electrode array and slidably disposed in the shaft,
wherein the first electrode array is placed in the deployed configuration when the first rod is
slid within the shaft in the distal direction; and

a second rod connected to the second electrode array and slidably disposed in the shaft,
wherein the second electrode array is placed in the deployed configuration when the
second rod is slid within the shaft in the proximal direction.

72. (Currently Amended) The probe of claim 67, wherein either or both of the first and the second electrode arrays of electrodes span a planar area in the range between 3 cm² to 20 cm² when deployed.

73. (Currently Amended) The probe of claim 67, wherein the first and the second electrode arrays of electrodes, when deployed, are spaced at least 2 cm from each other.

74. (Currently Amended) The probe of claim 67, wherein the first and the second electrode arrays of electrodes each has a concave face when deployed.

75. (Currently Amended) The probe of claim 67, further comprising:

a first connector coupled to the shaft for connecting the first electrode array to one pole of a power supply; and

a second connector coupled to the shaft for connecting the second electrode array to a second pole of the power supply.

76. (Currently Amended) A tissue ablation probe for deploying electrode arrays, comprising:

a first tube having a distal end, a proximal end, and a lumen extending between the ends;

a first array of electrodes at least partially disposed within the lumen of the first tube, the first array of electrodes having a retracted configuration and a deployed configuration;

a second tube located next to the first tube, the second tube having a distal end, a proximal end, and a lumen extending between the ends;

a second array of electrodes at least partially disposed within the lumen of the second tube, the second array of electrodes having a retracted configuration and a deployed configuration,

wherein at least one of the electrodes of the first array is configured to initially deploy from the shaft in a distal direction, wherein at least one of the electrodes of the second array is configured to initially deploy from the shaft in a proximal direction, wherein the at least one of the electrodes electrode of the first array has an end that faces at least partially in a the proximal direction, the at least one of the electrodes electrode of the second array has an end that faces at least partially in a the distal direction, and the end of the at least one of the electrodes electrode of the second array is located proximal to the end of the at least one of the electrodes electrode of the first array when the first and the second arrays

are deployed, and wherein the deployed first and second electrode arrays are configured to necrose a volume of tissue therebetween when electrical energy is applied between the first and second electrode arrays.

77. (Currently Amended) The probe of claim 76, further comprising:

a first rod connected to the first electrode array and slidably disposed in the shaft,
wherein the first electrode array is placed in the deployed configuration when the first rod is
slid within the shaft in the distal direction; and

a second rod connected to the second electrode array and slidably disposed in the shaft,
wherein the second electrode array is placed in the deployed configuration when the
second rod is slid within the shaft in the proximal direction.

78. (Currently Amended) The probe of claim 76, wherein either or both of the first and the second electrode arrays of electrodes span a planar area in the range between 3 cm² to 20 cm² when deployed.

79. (Currently Amended) The probe of claim 76, wherein the first and the second electrode arrays of electrodes are spaced at least 2 cm from each other.

80. (Currently Amended) The probe of claim 76, wherein the first and the second electrode arrays of electrodes each has a concave face when deployed.

81. (Currently Amended) The probe of claim 80, wherein the concave face of the first electrode array faces the concave face of the second electrode array when the electrode arrays are deployed.

82. (Currently Amended) The probe of claim 76, further comprising:

a first connector coupled to the first tube for connecting the first electrode array to one pole of a power supply; and

a second connector coupled to the second tube for connecting the second electrode array to a second pole of the power supply.

83. (Previously Presented) The probe of claim 67, wherein the first and second electrode arrays are configured to necrose the volume of tissue axially outward from a center of the volume of tissue.

84. (Previously Presented) The probe of claim 67, wherein the entire lengths of the at least one electrode of the first array and the at least one electrode of the second array are uninsulated.

85. (Previously Presented) The probe of claim 67, wherein the volume of tissue configured to be necrosed by the first and second electrode arrays is at least 30 cm³.

86. (Previously Presented) The probe of claim 67, wherein the first and second electrode arrays are completely spaced apart in the axial direction when in the deployed configuration.

87. (Previously Presented) The probe of claim 67, wherein the second electrode array deploys from a proximal axial location of the shaft, and the first electrode array deploys from a distal axial location of the shaft.

88. (Previously Presented) The probe of claim 67, wherein the end of the at least one electrode of the second array is proximal to the end of the at least one electrode of the first array.

89. (Previously Presented) The probe of claim 76, wherein the first and second electrode arrays are configured to necrose the volume of tissue axially outward from a center of the volume of tissue.

90. (Previously Presented) The probe of claim 76, wherein the entire lengths of the at least one electrode of the first array and the at least one electrode of the second array are uninsulated.

91. (Previously Presented) The probe of claim 76, wherein the volume of tissue configured to be necrosed by the first and second electrode arrays is at least 30 cm³.

92. (Previously Presented) The probe of claim 76, wherein the first and second electrode arrays are completely spaced apart in the axial direction when in the deployed configuration.

93. (Previously Presented) The probe of claim 76, wherein the second electrode array deploys from a proximal axial location of the shaft, and the first electrode array deploys from a distal axial location of the shaft.

94. (Previously Presented) The probe of claim 76, wherein the end of the at least one electrode of the second array is proximal to the end of the at least one electrode of the first array.